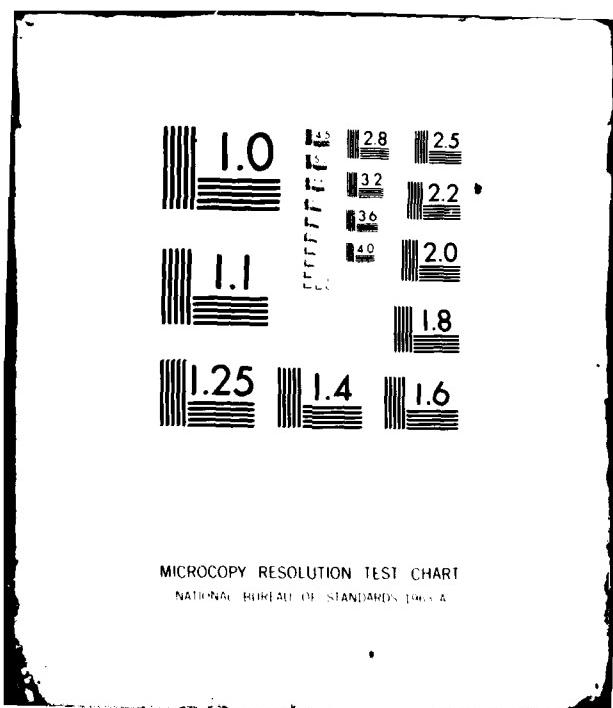


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14819AT LANCE. MISSILE NUMBER 4246, ROUND NUMBER 362-APT, 23 FE--ETC(U)
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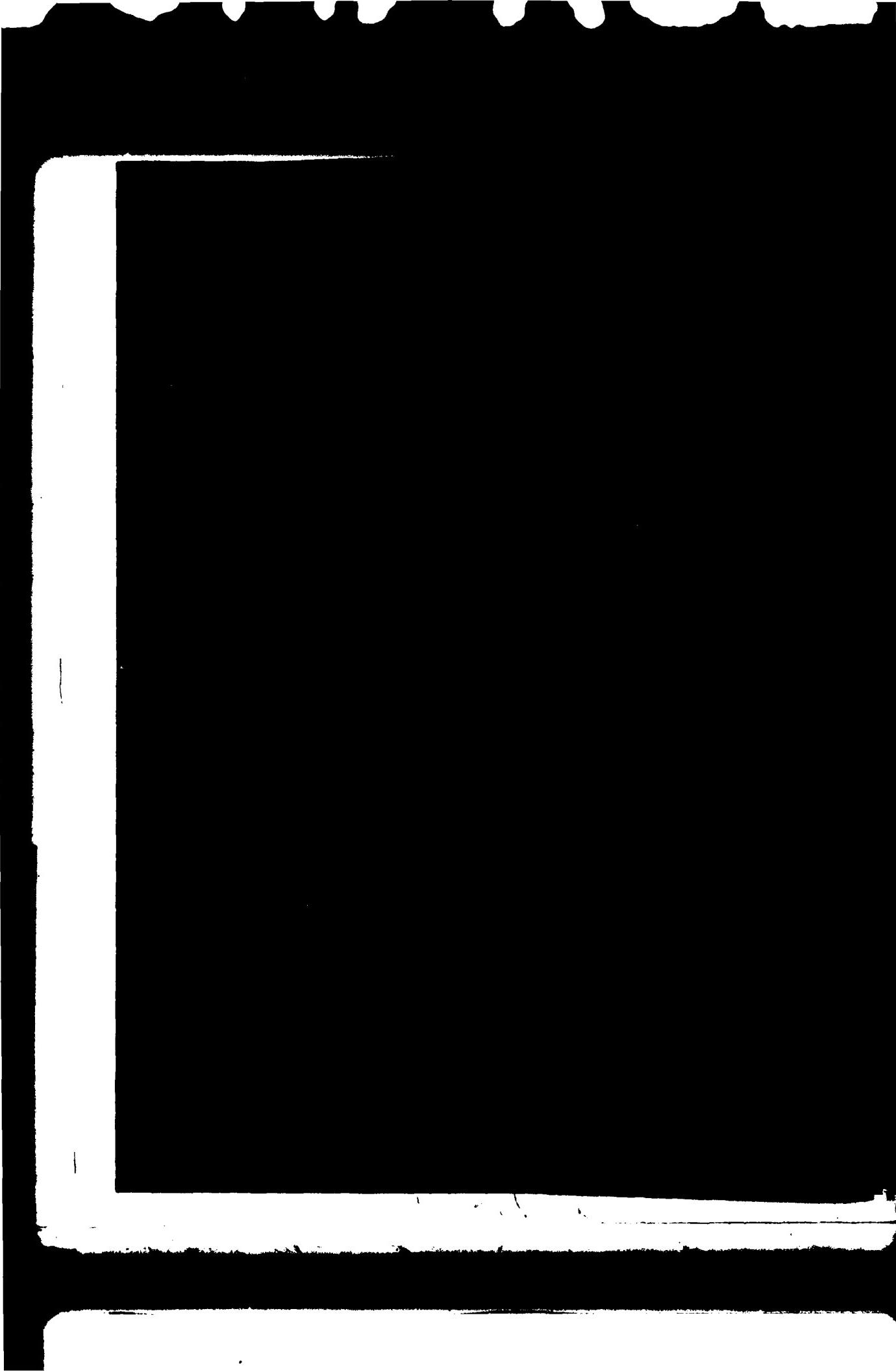
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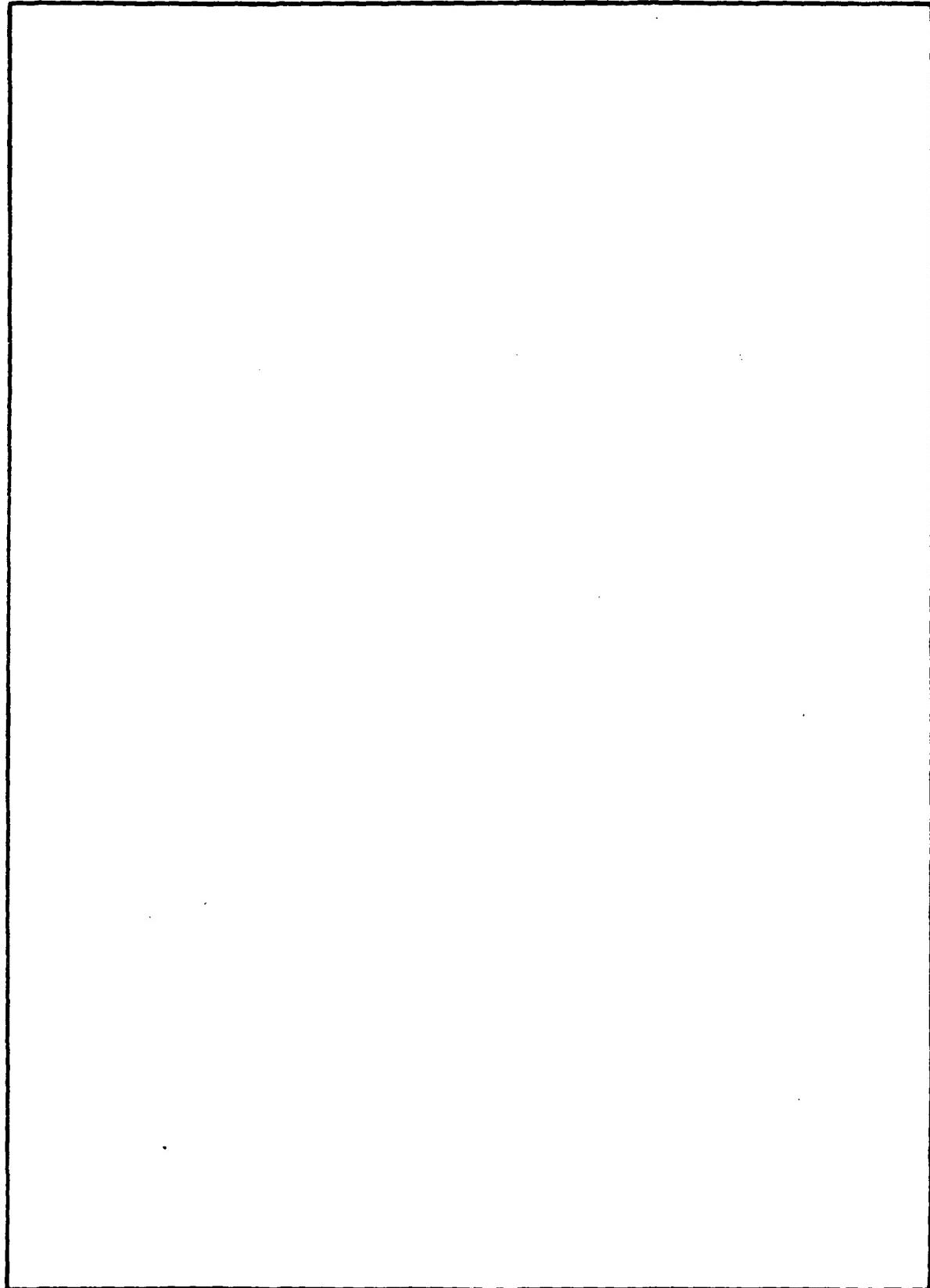


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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1169	2. GOVT ACCESSION NO. AD-A098 570	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 14819AT LANCE, Missile Number 4246, Round Number 362-APT	5. TYPE OF REPORT & PERIOD COVERED 14 Meteorological data report.	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) White Sands Meteorological Team	8. CONTRACT OR GRANT NUMBER(s) 14	9. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS DA Task 1F665702D127-02
10. PERFORMING ORGANIZATION NAME AND ADDRESS 14 EHDZM/ASH-DR-1169	11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002	12. REPORT DATE February 1981
13. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cmd Adelphi, MD 20783		14. NUMBER OF PAGES 12 30
15. SECURITY CLASS. (of this report) UNCLASSIFIED	16. DECLASSIFICATION/DOWNGRADING SCHEDULE	
17. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.	DTIC SELECTED MAY 6 1981	
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Metereological data gathered for the launching of the 14819AT LANCE, Missile Number 4246, Round Number 362-APT presented in tabular form.	15	

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

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SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

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INTRODUCTION

14819AT LANCE, Missile Number 4246, Round Number 362-APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 0906 on 23 Feb 1981. The scheduled launch time was 0900.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}$ C), relative humidity, dew point ($^{\circ}$ C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-39 met site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from Single Theodolite observation at:

SITE AND ALTITUDE

LC-39 2720 Meters

(b) Air structure data (rawinsonde) were collected at the following met sites. Data were collected from surface to as high as possible in 500-foot increments.

SITE AND TIME

WSD	1015 MST
SMR	0800 MST
*E28	0850 MST

*E28 Site is located approx. 20 miles of HMN, at the south end of Northrop Strip.

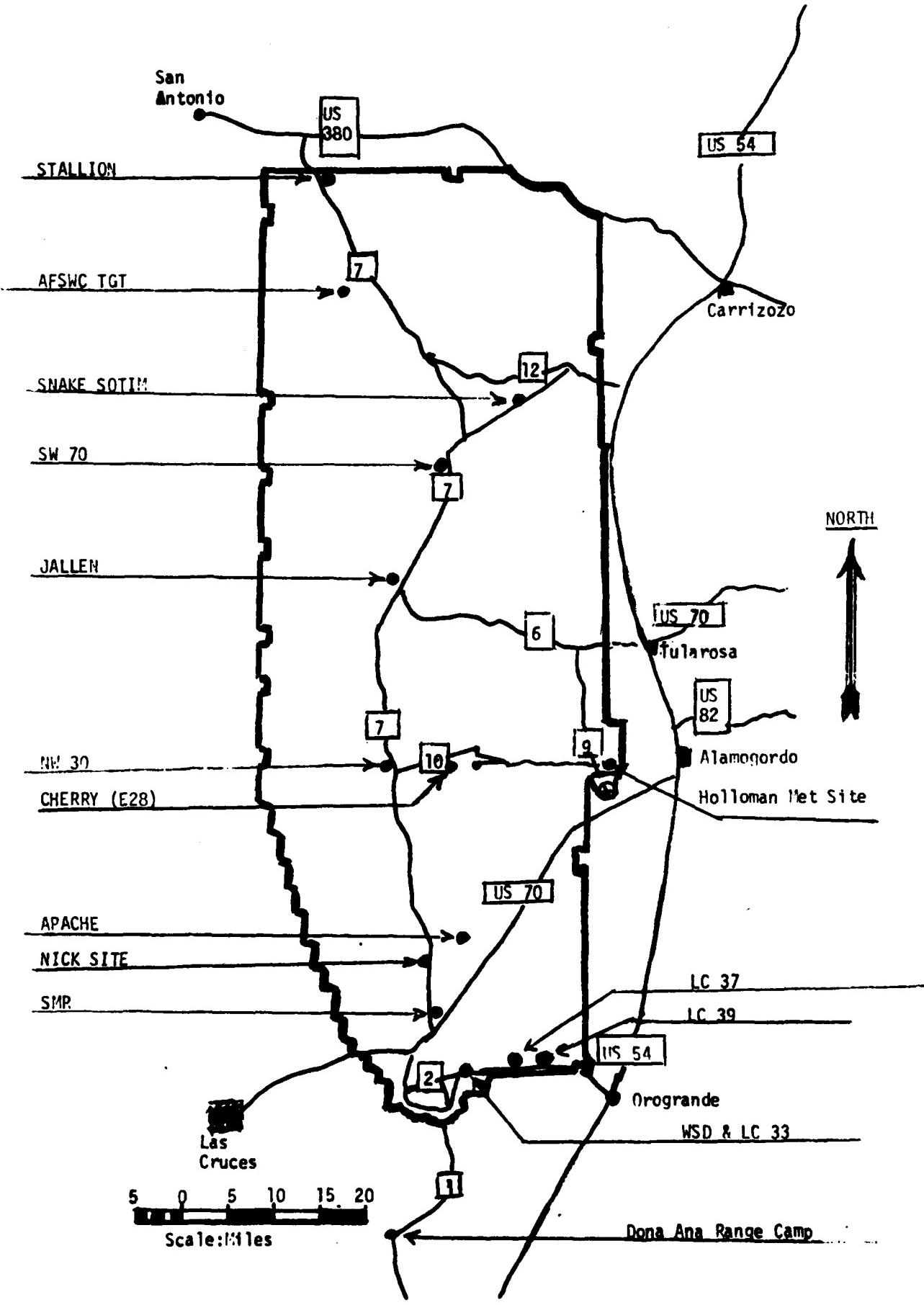


TABLE 1. Surface Observations taken at 0905 MST,
23 February 1981, at LC-39, 14819AT LANCE,
Missile Number 4246, Round Number 362-APT.

ELEVATION	4063.75	FT/MSL
PRESSURE	882.5	MBS
TEMPERATURE	5.5	°C
RELATIVE HUMIDITY	49	%
DEW POINT	-4.3	°C
DENSITY	1100	GM/M ³
WIND SPEED	CALM	KTS
WIND DIRECTION	CALM	DEGREES
CLOUD COVER	CLEAR	

PILOT BALLOON MEASURED WIND DATA

TABLE 2

RELEASED FROM LC-39

DATE 23 Feb 1981

TIME 0855 MST

COORDINATES (WSTM) X= 530,938.82 Y= 185,564.96 H= 4063.75

NOTE: WIND DIRECTIONS ARE REFERENCED TO
HEIGHTS ARE METERS AGL X OR FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
sfc	CALM	
60	116	01
120	088	03
180	078	03
240	039	03
300	038	04
360	035	05
420	036	04
480	028	04
540	012	04
600	008	04
660	016	04
720	020	04
780	020	03
840	016	03
900	022	03
960	038	02
1020	100	02
1080	083	02
1140	074	01
1200	098	01
1260	338	01
1320	007	02
1380	034	03
1440	052	02
1500	111	01
1560	111	04
1620	117	05
1680	124	05
1740	125	05
1800	123	05

PILOT BALLOON MEASURED WIND DATA

TABLE 3

RELEASED FROM LC-39

DATE 23 Feb 1981

TIME 0905 MST

COORDINATES (WSTM) X= 530,938.82 Y= 186,564.96 H= 4063,75

NOTE: WIND DIRECTIONS ARE REFERENCED TO
HEIGHTS ARE METERS AGL X OR FEET AGL .

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
sfc	CALM	
60	090	02
120	105	03
180	108	02
240	035	02
300	045	04
360	053	04
420	040	04
480	035	04
540	035	04
600	037	04
660	036	04
720	038	03
780	067	02
840	090	01
900	150	01
960	037	01
1020	031	01
1080	039	02
1140	081	01
1200	068	01
1260	044	01
1320	044	02
1380	054	02
1440	119	02
1500	125	04
1560	130	05
1620	134	05
1680	135	05
1740	133	05
1800	131	06

STATION ALTITUDE. 3939.00 FEET MSL
23 APR. 1961 1615 hrs. AST
ACHTON 110. 122

SIGNIFICANT LEVEL DATA
050002012C
WHITE SANDS
TABLE 4

	PRESSURE GEOMETRIC MILLIBARS	ALTITUDE MILLIARS MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
303.3	3089.0	11.8	-6.6	27.0	
377.4	4172.9	11.5	-9.4	22.0	
453.2	4777.4	9.6	-9.9	24.0	
530.0	5138.9	9.6	-9.9	24.0	
700.6	7075.2	8.0	-10.3	26.0	
760.0	8074.5	7.5	-12.4	23.0	
713.6	9762.1	2.6	-15.4	25.0	
760.0	10273.8	3.2	-15.9	23.0	
679.4	12251.1	2.1	-17.9	21.0	
606.2	14077.8	-2.4	-21.7	21.0	
589.0	14026.2	-4.1	-23.7	20.0	
530.4	17520.5	-8.5	-27.4	20.0	
500.0	19014.2	-12.5	-30.7	20.0	
440.0	24476.1	-25.8	-41.1	22.0	
372.8	26141.2	-30.0	-44.3	23.0	
350.2	28326.0	-36.0	-49.6	23.0	
300.0	31097.1	-42.6			
277.6	32803.1	-47.8			
250.0	35052.7	-53.1			
220.9	36293.7	-56.4			
222.8	37477.6	-55.1			
212.6	38661.2	-56.2			
200.0	39748.0	-53.6			
186.2	43654.5	-55.5			
161.6	44242.7	-56.7			
150.0	45797.4	-57.3			
133.6	48149.4	-61.2			
108.2	52063.5	-65.5			
106.0	54040.9	-66.6			
76.6	59336.6	-68.7			
70.0	61100.4	-70.9			
62.0	63502.4	-67.5			
56.4	65136.7	-67.3			
50.0	67817.1	-61.6			
45.0	69634.6	-57.1			
43.0	70948.3	-58.9			
30.0	78195.9	-54.4			
20.0	87156.5	-51.0			
15.0	93760.6	-50.7			
12.4	97537.6	-43.5			

STATION ALTITUDE 3930.00 FEET MSL
23 FFH, R1 1015 HRS EST
ASCENSION 140. 122

SIGNIFICANT LEVEL DATA

0540020122

WHITE SAVANNS

GEODETIC COORDINATES
32°40'0"3 LAT DEG
106°37'53"3 LON DEG

TABLE 4 cont'

PRESSURE GEOMETRIC MILLIBARS MSL FEE T	ALTITUDE MILLIBARS MSL FEE T	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT
102337.1	102337.1	-43.3	
9.2	104198.1	-43.3	

STATION ALTIMETER 30.0000 FEET MSL
21 SEP. 61 1015 HRS EST
ASSEMBLED NO. 127

UPPER AIR DATA
054000Z 2012Z
WHITE SANDS
TABLE 5

GEOMETRIC COORDINATES
32°40'04.3 LAT LEG
106°37'03 LONG LEG

GEOMETRIC PRESSURE ALTIMETER MIL. FELT	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN) SPEED KNOTS	INFLUX OF REFRACTION
3909.0	1050.3	11.0	-6.0	1078.2	650.2	0.0	1.00025.0
4000.0	1082.9	11.4	-6.7	1077.8	650.1	71.0	1.00025.7
4500.0	967.0	10.5	-9.7	1063.5	656.5	71.0	1.00025.1
5000.0	951.2	9.6	-9.9	1047.4	655.5	71.0	1.00024.7
5500.0	935.7	9.2	-10.0	1029.6	655.1	71.0	1.00024.3
6000.0	920.9	8.8	-10.1	1012.2	654.6	79.3	1.00023.9
6500.0	905.5	8.5	-10.2	995.1	650.2	140.3	1.00023.5
7000.0	790.8	8.1	-10.3	978.3	653.7	196.6	1.00023.1
7500.0	776.3	7.7	-11.2	961.7	655.3	204.2	1.00022.7
8000.0	762.1	7.4	-12.3	945.4	652.9	197.9	5.4
8500.0	748.0	6.1	-13.2	932.1	651.4	193.4	6.3
9000.0	734.2	6.7	-14.0	919.5	649.8	192.1	6.4
9500.0	720.6	5.3	-14.9	907.1	648.1	190.6	6.1
10000.0	707.2	2.9	-15.6	891.7	647.6	188.9	5.7
10500.0	694.1	3.1	-16.1	874.5	647.8	195.3	5.6
11000.0	681.1	2.8	-16.6	859.1	647.5	212.6	6.5
11500.0	668.4	2.5	-17.1	843.9	647.1	234.2	6.6
12000.0	656.0	2.2	-17.6	829.1	646.8	246.3	1.000212
12500.0	643.7	1.5	-18.4	815.8	645.9	255.0	1.000208
13000.0	631.6	.3	-19.5	804.1	644.4	261.5	1.000203
13500.0	619.7	-1.0	-20.5	792.6	642.9	266.4	14.0
14000.0	608.0	-2.2	-21.5	781.2	641.5	270.3	15.0
14500.0	596.4	-3.4	-22.8	769.7	640.1	273.6	13.9
15000.0	585.0	-4.4	-23.9	757.9	638.9	270.2	12.4
15500.0	573.8	-5.2	-24.6	745.6	637.9	284.2	11.2
16000.0	562.7	-6.0	-25.3	733.4	636.9	285.9	11.1
16500.0	551.9	-6.8	-26.0	721.5	635.9	281.7	12.1
17000.0	541.2	-7.6	-26.6	709.8	634.9	276.0	12.1
17500.0	530.8	-8.5	-27.3	698.3	634.0	271.2	12.0
18000.0	520.4	-9.3	-28.0	686.1	632.4	261.7	12.4
18500.0	510.5	-10.1	-28.6	676.1	630.7	253.2	13.0
19000.0	501.3	-10.5	-30.7	668.3	629.1	245.4	13.0
19500.0	490.2	-13.7	-31.6	657.9	627.6	239.7	12.7
20000.0	480.5	-14.0	-32.6	647.7	626.2	234.1	11.3
20500.0	470.6	-16.1	-33.5	637.6	624.7	235.2	11.6
21000.0	461.7	-17.3	-35.5	627.7	623.2	237.4	12.1
21500.0	451.7	-18.6	-35.4	617.9	621.7	241.3	12.8
22000.0	442.6	-17.8	-36.4	608.4	620.2	243.6	13.3
22500.0	433.6	-21.0	-37.3	598.9	618.7	245.3	13.7
23000.0	424.0	-22.2	-38.3	589.7	617.2	250.4	14.2

CATION ALTITUDE 3930.0 FEET MSL
25 SEP. 31 1961 THIS IS,
ACQUISITION NO. 122

UPPER AIR DATA
054002012Z
WHITE SANDUS
REF ID: A5110001

TABLE 5 cont'

GEOPOTENTIAL ALTITUDE IN FEET MILLIARS	PRESSURE IN MILLIBARS	TEMPERATURE AT DEWPOINT OF CLOUDS CLOUD HEIGHT	REL.HUM. PERCENT	INTENSITY GM/CMICR	SPEED OF WIND DATA KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3500.0	919.3	-23.4	-39.2	21.6	530.6	615.7	254.4	14.5
4000.0	907.0	-20.6	-40.2	21.8	571.7	614.2	255.3	14.3
4500.0	899.6	-25.9	-41.2	22.0	562.8	612.7	256.1	14.3
5000.0	891.2	-27.1	-42.1	22.3	553.9	611.1	256.6	14.5
5500.0	883.1	-23.0	-43.1	22.6	545.1	609.5	259.1	14.3
6000.0	875.0	-29.6	-44.1	22.9	536.3	608.0	262.6	13.8
6500.0	867.1	-31.0	-45.2	23.0	528.0	606.3	263.0	12.9
7000.0	859.2	-32.4	-46.4	23.0	519.7	604.6	262.0	12.2
7500.0	851.6	-33.7	-47.6	23.0	511.5	602.8	257.0	12.0
8000.0	844.6	-35.1	-46.8	23.0	503.4	601.1	251.5	14.3
8500.0	836.6	-36.4	-50.5	21.6**	475.3	599.4	245.5	16.9
9000.0	829.2	-37.6	-53.3	17.4**	486.9	597.9	204.5	19.2
9500.0	822.0	-38.0	-56.5	13.3**	478.7	598.4	246.7	21.2
10000.0	815.0	-40.0	-60.0	9.1**	470.6	594.9	250.0	22.2
10500.0	808.1	-41.2	-65.8	5.0**	462.6	593.4	253.7	23.0
11000.0	801.3	-42.4	-70.7	0.8**	454.8	591.8	255.1	23.8
11500.0	294.6	-43.8		447.5	590.0	255.9	24.7	1.00010
12000.0	287.9	-45.4		440.3	588.0	255.7	25.7	1.000098
12500.0	281.5	-46.9		433.3	586.0	255.3	26.7	1.000097
13000.0	275.1	-48.3		426.1	584.2	252.6	27.9	1.000095
13500.0	268.7	-49.4		416.5	562.7	250.5	29.3	1.000093
14000.0	262.5	-50.6		411.0	541.2	249.5	31.0	1.000092
14500.0	256.1	-51.8		403.7	579.6	249.7	32.1	1.000090
15000.0	250.6	-53.0		396.5	578.1	251.7	32.0	1.000089
15500.0	244.7	-53.9		388.8	576.9	254.7	30.7	1.000087
16000.0	239.0	-54.7		381.2	575.3	259.7	28.0	1.000085
16500.0	233.4	-55.6		373.7	574.7	261.1	27.4	1.000083
17000.0	227.9	-56.4		366.3	573.6	259.3	28.2	1.000082
17500.0	222.6	-57.1		359.9	575.2	259.9	28.9	1.000079
18000.0	217.3	-57.7		351.8	574.5	261.5	32.0	1.000078
18500.0	212.2	-58.1		346.1	573.9	268.8	32.9	1.000076
19000.0	207.2	-58.5		331.1	575.3	277.0	34.0	1.000074
19500.0	202.4	-59.1		321.8	576.6	261.1	33.8	1.000072
20000.0	197.6	-59.7		313.8	577.1	280.8	33.5	1.000070
20500.0	193.8	-59.6		306.7	576.8	280.3	35.2	1.000068
21000.0	189.5	-59.2		299.9	576.4	291.3	37.5	1.000067
21500.0	185.1	-59.5		293.2	576.1	292.7	40.7	1.000065
22000.0	179.8	-59.7		286.7	575.8	293.4	44.3	1.000064
22500.0	175.5	-59.9		280.3	575.5	294.2	45.7	1.000062
23000.0	171.4	-59.2		274.0	575.2	295.0	46.2	1.000061

* AT LEAST ONE REFLECTION RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3409.00 FEET MSL
231 P.M. AT 1015 HRS. AST
ASCENTION 149. 122

WEATHER AIR DATA
0540020212Z
WHITE SANDS

TABLE 5 cont'

GEODETIC COORDINATES
32.40043 LAT DEG
106.37013 LON DEG

GEOPOTENTIAL	PRESSURE ATMOSPHERE	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	SPEED OF WIND KILOTS	DIRECTION DEGREES TN	WIND DATA KNOTS	INDEX OF REFRACTION
4.55000.0	167.4	-45.4	267.9	574.8	296.6	45.9	1.000060
4.40000.0	165.5	-56.2	262.5	575.0	298.6	45.3	1.000058
4.25000.0	159.6	-56.8	257.0	573.0	298.9	44.6	1.000057
4.00000.0	155.0	-57.0	251.2	572.8	298.1	43.7	1.000056
3.75000.0	152.2	-57.2	245.4	572.5	296.8	44.1	1.000055
3.50000.0	148.5	-57.6	240.1	571.9	295.0	46.2	1.000053
3.25000.0	145.0	-58.4	235.2	570.8	294.1	48.0	1.000052
3.00000.0	141.5	-49.3	230.5	569.8	295.2	49.1	1.000051
2.75000.0	138.1	-60.1	225.8	568.7	296.2	50.1	1.000050
2.50000.0	134.8	-60.9	221.3	567.6	298.6	46.8	1.000049
2.25000.0	131.6	-61.5	216.6	566.0	301.3	43.7	1.000048
2.00000.0	128.4	-62.0	211.8	566.1	303.6	41.1	1.000047
1.75000.0	125.2	-62.5	207.1	565.4	309.0	38.8	1.000046
1.50000.0	122.2	-63.0	202.6	564.7	307.1	37.0	1.000045
1.25000.0	119.2	-63.5	198.1	564.1	307.2	35.8	1.000044
1.00000.0	116.3	-64.0	193.7	563.4	306.9	34.8	1.000043
2.15000.0	113.5	-64.5	189.5	562.7	305.9	34.3	1.000042
2.00000.0	110.7	-65.0	185.3	562.0	304.9	33.9	1.000041
1.85000.0	108.0	-65.5	181.2	561.4	305.9	33.6	1.000040
1.70000.0	105.3	-65.9	177.0	560.9	303.0	33.4	1.000039
1.55000.0	102.7	-66.2	173.0	560.4	303.6	31.5	1.000039
1.40000.0	100.2	-66.6	169.0	559.9	305.5	28.3	1.000038
1.25000.0	97.7	-66.8	165.0	559.7	307.6	25.3	1.000037
1.10000.0	95.3	-67.0	161.0	559.4	307.2	23.2	1.000036
9.50000.0	92.0	-67.2	157.2	559.1	306.6	21.0	1.000035
9.00000.0	90.6	-67.4	153.4	558.8	301.7	20.2	1.000034
8.50000.0	88.1	-67.6	149.7	558.6	294.6	20.3	1.000033
8.00000.0	86.2	-67.8	146.1	558.3	290.2	20.6	1.000032
7.50000.0	84.0	-68.0	142.7	558.0	291.5	20.6	1.000031
7.00000.0	81.9	-68.2	139.2	557.8	292.9	24.7	1.000031
6.50000.0	79.9	-68.4	135.9	557.5	295.4	22.1	1.000030
6.00000.0	77.9	-68.6	132.7	557.2	297.7	23.8	1.000030
5.50000.0	76.0	-68.9	129.6	556.8	299.7	24.6	1.000029
5.00000.0	74.1	-69.1	126.7	555.9	301.7	24.6	1.000028
4.50000.0	72.2	-69.4	123.9	555.1	305.6	24.7	1.000027
4.00000.0	70.4	-69.6	121.2	554.2	306.6	19.8	1.000026
3.50000.0	68.6	-70.0	117.9	554.8	317.5	14.7	1.000025
3.00000.0	66.9	-69.6	114.5	555.0	329.5	10.6	1.000024
2.50000.0	65.2	-69.9	111.3	556.7	320.7	8.5	1.000024
2.00000.0	63.6	-70.2	108.1	557.7	322.2	6.3	1.000024

STATION ALTITUDE 5983.00 FEET MSL
23-LD. 83 1015 IPS, MST
ASPECT 00. 122

UPPER AIR DATA
0540020122
WHITE SANDS
TABLE 5 Cont'

GEOPOTENTIAL	PRESSURE ATMOSPHERE MSL FLT	TEMPERATURE DEGREES CELSIUS	REL.HUM. PERCENT	GND/ATM SOUND METER	SPEED OF WIND KNOTS	DIRECTION DEGREES (TN)	INDEX OF REFRACTION
63500.0	62.0	-67.5	105.0	558.7	307.9	5.7	1.000023
64400.0	63.5	-67.4	102.4	558.7	291.9	6.9	1.000023
65300.0	59.0	-67.4	99.8	558.0	241.3	8.5	1.000022
66200.0	57.5	-67.1	97.3	558.9	277.3	7.4	1.000022
67100.0	50.1	-67.0	94.8	559.3	272.2	6.5	1.000021
68000.0	54.7	-65.9	91.9	560.9	267.4	6.3	1.000020
68500.0	53.4	-64.7	89.2	562.5	264.9	6.9	1.000020
69400.0	52.1	-63.5	86.5	564.1	262.9	7.6	1.000019
70300.0	50.8	-62.3	83.9	565.6	265.4	9.1	1.000019
71200.0	49.6	-61.2	81.4	567.2	267.4	10.7	1.000019
72100.0	48.4	-59.9	79.0	568.9	270.1	11.3	1.000018
73000.0	47.2	-58.7	76.7	570.5	275.6	10.0	1.000017
73500.0	46.1	-57.4	74.4	572.2	282.7	8.8	1.000017
74000.0	45.0	-57.6	72.7	572.0	289.8	6.7	1.000016
74500.0	43.9	-56.3	71.2	571.1	302.9	4.1	1.000016
75000.0	42.9	-58.9	69.7	570.3	344.9	2.3	1.000016
75500.0	41.9	-58.6	60.0	570.7	359.1	1.8	1.000015
76000.0	40.9	-58.3	60.3	571.1	9.9	1.4	1.000015
76500.0	39.9	-58.0	64.6	571.5	26.5	1.0	1.000014
77000.0	39.0	-57.7	63.0	571.9	54.4	.5	1.000014
77500.0	38.1	-57.4	61.5	572.3	175.3	.6	1.000014
78000.0	37.2	-57.1	59.9	572.7	176.4	1.3	1.000013
78500.0	36.3	-56.8	50.4	573.0	164.0	2.3	1.000013
79000.0	35.4	-56.5	57.0	573.4	158.9	3.2	1.000013
79500.0	34.6	-56.2	55.6	573.8	153.3	4.1	1.000012
80000.0	33.8	-55.9	54.2	574.2	147.5	4.9	1.000012
80500.0	33.0	-55.6	52.8	574.6	145.4	5.8	1.000012
81000.0	32.2	-55.3	51.5	575.0	141.7	7.2	1.000011
81500.0	31.5	-55.0	50.2	575.4	141.1	8.9	1.000011
82000.0	30.7	-54.7	49.0	575.8	140.7	10.6	1.000011
82500.0	30.0	-54.4	47.8	576.2	149.6	11.3	1.000011
83000.0	29.3	-54.2	46.6	576.5	149.0	11.9	1.000010
83500.0	28.6	-54.0	45.5	576.7	152.9	12.6	1.000010
84000.0	28.0	-53.8	44.4	577.0	156.5	12.5	1.000010
84500.0	27.3	-53.6	43.3	577.2	160.2	12.4	1.000010
85000.0	26.7	-53.4	42.3	577.5	163.9	12.7	1.000009
85500.0	26.1	-53.2	41.3	577.7	164.8	12.7	1.000009
86000.0	25.5	-53.0	40.3	578.0	165.5	13.0	1.000009
86500.0	24.9	-52.8	39.3	578.3	166.4	13.2	1.000009
87000.0	24.3	-52.6	38.4	578.5	168.6	13.4	1.000009

STATION ALTITUDE 3900 FT MSL
24 LH. EL 115 LHS MSL
AIRCRAFT NO. 122

UPPER AIR DATA

054000Z0122
WHITE SANDS

TABLE 5 cont'

GEOGRAPHIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL.HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES TN	INDEX OF REFRACTION
61500.0	23.7	-52.4	37.5	570.8	170.7	13.6	1.000008
61000.0	23.2	-52.2	36.6	579.0	172.6	13.7	1.000008
60400.0	22.7	-52.0	35.7	579.3	173.6	13.7	1.000008
60000.0	22.1	-51.8	34.8	579.5	174.5	13.6	1.000008
59500.0	21.6	-51.7	34.0	579.8	175.6	13.0	1.000008
59000.0	21.1	-51.5	33.2	580.1	176.0	10.7	1.000007
58500.0	20.6	-51.3	32.4	580.3	181.8	8.4	1.000007
58000.0	20.1	-51.1	31.6	580.6	188.3	6.1	1.000007
57500.0	19.7	-51.0	30.9	580.7	202.5	4.0	1.000007
57000.0	19.2	-51.0	30.2	580.7	239.4	2.5	1.000007
56500.0	18.8	-50.9	29.5	580.7	292.2	3.0	1.000007
56000.0	18.4	-50.9	28.8	580.8	303.6	4.3	1.000006
55500.0	17.9	-50.9	28.1	580.8	298.6	5.1	1.000006
55000.0	17.5	-50.9	27.5	580.8	294.9	6.0	1.000006
54500.0	17.1	-50.8	26.8	580.9	292.3	6.9	1.000006
54000.0	16.7	-50.8	26.2	580.9	277.8	6.5	1.000006
53500.0	16.4	-50.8	25.6	580.9	262.2	6.6	1.000006
53000.0	16.0	-50.0	25.0	581.0	248.0	7.1	1.000006
52500.0	15.6	-50.0	24.5	581.0	240.2	8.0	1.000005
52000.0	15.3	-50.7	23.9	581.0	238.2	9.2	1.000005
51500.0	14.9	-50.5	23.3	581.4	236.7	10.3	1.000005
51000.0	14.6	-49.6	22.7	582.5	235.4	11.5	1.000005
50500.0	14.2	-48.7	22.1	583.7	239.2	13.7	1.000005
50000.0	13.9	-47.8	21.5	584.8	242.3	16.1	1.000005
49500.0	13.6	-46.9	21.0	586.0	244.6	18.5	1.000005
49000.0	13.3	-46.0	20.4	587.1	246.4	20.7	1.000005
48500.0	13.0	-45.1	19.9	588.3	247.7	22.6	1.000004
48000.0	12.7	-44.3	19.3	589.4	248.8	24.4	1.000004
47500.0	12.4	-43.4	18.8	590.5	249.8	26.2	1.000004
47000.0	12.1	-43.3	18.4	590.6	251.1	28.3	1.000004
46500.0	11.9	-43.3	18.0	590.6	252.5	30.6	1.000004
46000.0	11.6	-43.3	17.6	590.6	253.7	32.8	1.000004
45500.0	11.4	-43.3	17.2	590.6	254.8	34.9	1.000004
45000.0	11.1	-43.3	16.8	590.6	256.0	35.6	1.000004
44500.0	10.9	-43.3	16.5	590.6	257.2	36.4	1.000004
44000.0	10.6	-43.3	16.1	590.6	258.3	37.1	1.000004
43500.0	10.4	-43.3	15.7	590.6			1.000004
43000.0	10.2	-43.3	15.4	590.6			1.000003
42500.0	9.9	-43.3	15.0	590.6			1.000003
42000.0	9.7	-43.3	14.7	590.6			1.000003

STATION ALTITUDE 3489.00 FEET MSL
23 FEB. 61 1015 hrs MST
ASCENSION NO. 122

UPPER AIR DATA
05400020122
WHITE SANDS
TABLE 5 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	SPEED OF WIND DATA KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
10550.0	9.5	-43.3	14.4	590.6	14.4	1.000003
10490.0	9.3	-43.3	14.1	590.6	14.1	1.000003

STATION ALTITUDE 3989.00 FEET MSL
23 FEB. 61 1015 HRS MST
ASCENSION ID. 122

MANDATORY LEVELS
0540020122
WHITE SANDS
TABLE 6

GEOODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE DEGREES	AIR DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
450.0	5035.	9.6	-9.9	24.	71.0	.8
400.0	6001.	8.3	-10.2	26.	170.6	.0
350.0	8424.	6.3	-13.0	23.	193.6	6.3
700.0	10264.	3.2	-15.9	23.	192.4	5.8
650.0	12230.	2.1	-17.9	21.	250.8	10.9
600.0	14329.	-3.0	-22.4	21.	272.6	14.5
550.0	16571.	-7.0	-26.1	20.	281.0	12.2
500.0	18907.	-12.5	-30.7	20.	245.3	13.4
450.0	21576.	-18.8	-35.6	21.	242.1	12.9
400.0	24436.	-25.8	-41.1	22.	256.1	14.3
350.0	27558.	-34.0	-47.0	23.	256.1	13.1
300.0	31035.	-42.6			255.2	24.0
250.0	34976.	-53.1			251.8	32.0
200.0	39653.	-53.6			282.8	33.7
175.0	42461.	-55.0			294.3	45.7
150.0	45674.	-57.3			295.8	45.2
125.0	49405.	-62.6			306.1	38.6
100.0	53874.	-66.6			305.6	28.2
80.0	58285.	-68.4			295.2	22.0
70.0	60900.	-70.9			309.7	19.0
60.0	63926.	-67.4			288.9	7.2
50.0	67566.	-61.6			266.6	10.0
40.0	72165.	-58.0			24.3	1.1
30.0	78163.	-54.4			144.2	11.2
25.0	82009.	-52.9			166.0	13.2
20.0	86752.	-51.0			190.6	5.6
15.0	92898.	-50.7			237.2	9.9
10.0	101746.	-43.3				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION, ALTITUDE 3997.30 FEET MSL
23 FEB. 41 0800 HRS MSL
ASCENSION NO. 29

SIGNIFICANT LEVEL DATA

0540060029

S M R

GEODETIC COORDINATES
32°40'34" LAT deg
106°42'30" LON deg

TABLE 7

PRESSURE OR OXYMETRIC MILLIBARS MSL FLEET	ALTITUDE FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DENSITY PERCENT	REL. HUM. PERCENT
1000.5	3997.3	-0.4	-15.6	30.0
871.8	4376.7	2.0	-15.7	30.0
752.2	4768.0	7.1	-11.6	25.0
650.0	5050.4	8.9	-11.1	23.0
550.4	5374.5	9.0	-11.5	22.0
450.2	5700.9	2.8	-17.9	20.0
350.8	6028.0	-0.1	-20.9	19.0
250.4	6373.6	-7.4	-27.0	19.0
150.0	6688.1	-13.4	-32.0	19.0
100.0	19698.0	-14.0	-35.1	16.0
442.8	22000.0	-18.9	-36.7	19.0
400.0	24057.4	-25.9	-42.1	20.0
342.2	28100.8	-35.0	-49.5	21.0
300.0	31082.8	-42.6		
250.0	35046.5	-52.9		
238.8	36016.2	-59.8		
213.2	38382.4	-57.7		
200.0	39718.3	-57.7		
166.2	43557.7	-58.9		
162.0	44089.1	-57.4		
150.0	45690.2	-58.0		
144.4	46477.4	-59.8		
100.0	53924.5	-66.9		
70.0	60976.1	-70.4		
50.0	67601.6	-63.9		
49.2	68007.7	-64.5		

SATION ALTITUDE 3497.30 FEET MSL
25 FEB. 41 0900 HRS AST
ASCENSION NO. 29

UPPER AIR DATA
S M R
TABLE 8

GEODETIC COORDINATES
0540060029
32°48'34" LAT UEG
106°42'30" LON UEG

GEOMETRIC ALTITUDE ASL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	TEMPERATURE NEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/Cubic METER	SPEED OF SOUND KILOTS	DIRECTION DEGREES TN	WIND DATA KNOTS	INDEX OF REFRACTION
3997.3	804.5	-7.0	-15.8	30.0	1128.9	643.6	230.0	2.9	1.000261
4000.0	804.4	-7.0	-15.8	30.0	1128.7	643.7	230.1	2.9	1.000261
4500.0	867.9	3.6	-13.0	28.0	1091.4	648.4	248.9	1.6	1.000254
5000.0	851.9	8.5	-11.2	23.4	1052.3	654.2	312.3	1.0	1.000247
5500.0	836.3	8.8	-11.7	21.9	1032.0	654.6	350.6	2.0	1.000242
6000.0	820.9	8.2	-12.4	21.7	1015.3	653.8	13.4	3.3	1.000237
6500.0	805.7	7.6	-13.0	21.5	998.0	653.1	21.1	4.4	1.000233
7000.0	790.9	6.9	-13.6	21.3	982.7	652.3	44.6	2.9	1.000229
7500.0	776.3	6.3	-14.3	21.1	966.8	651.6	78.8	2.4	1.000225
8000.0	762.0	5.7	-16.9	20.9	951.1	650.8	93.3	2.1	1.000221
8500.0	748.0	5.1	-15.6	20.7	935.7	650.1	70.4	2.5	1.000217
9000.0	734.2	4.5	-16.2	20.5	920.6	649.3	64.3	4.1	1.000214
9500.0	720.6	3.8	-16.9	20.3	905.7	648.6	50.9	5.0	1.000210
10000.0	707.4	3.2	-17.5	20.1	891.1	647.8	57.0	5.9	1.000206
10500.0	694.2	2.5	-18.2	19.9	876.6	647.1	60.6	4.3	1.000203
11000.0	681.0	1.9	-16.9	19.7	862.3	646.3	69.4	2.6	1.000199
11500.0	668.5	1.2	-19.5	19.4	849.2	645.5	312.3	1.1	1.000195
12000.0	655.9	.5	-20.2	19.2	834.3	644.7	270.7	4.1	1.000192
12500.0	643.6	-1.1	-20.9	19.0	820.7	644.0	296.0	6.1	1.000189
13000.0	631.4	-1.1	-21.7	19.0	807.8	642.8	304.4	8.4	1.000185
13500.0	619.3	-2.0	-22.5	19.0	795.2	641.7	305.1	10.1	1.000182
14000.0	607.5	-2.9	-23.3	19.0	782.7	640.6	305.5	11.7	1.000179
14500.0	595.9	-3.9	-24.0	19.0	770.5	639.5	298.8	13.0	1.000176
15000.0	584.5	-4.6	-24.8	19.0	758.5	638.3	293.1	14.4	1.000173
15500.0	573.4	-5.0	-25.6	19.0	746.6	637.2	308.6	15.0	1.000170
16000.0	562.4	-6.7	-26.4	19.0	735.0	636.0	284.6	17.1	1.000167
16500.0	551.6	-7.7	-27.2	19.0	723.6	634.9	280.4	17.9	1.000165
17000.0	540.9	-8.8	-28.2	19.0	712.5	633.5	275.7	10.0	1.000162
17500.0	530.3	-10.0	-29.2	19.0	701.7	632.1	269.8	17.5	1.000159
18000.0	519.9	-11.1	-30.1	19.0	691.0	630.7	267.6	16.5	1.000157
18500.0	509.7	-12.3	-31.1	19.0	680.5	629.3	260.9	15.1	1.000154
19000.0	499.9	-13.4	-32.0	19.0	670.1	628.0	269.1	13.8	1.000152
19500.0	489.6	-13.8	-32.0	18.3	657.9	627.4	273.5	12.5	1.000149
20000.0	480.1	-14.6	-33.5	18.1	646.0	626.5	273.8	12.2	1.000146
20500.0	470.5	-15.7	-34.3	18.3	636.5	625.2	271.0	12.4	1.000144
21000.0	461.1	-16.0	-35.1	18.6	626.4	623.9	268.2	12.6	1.000141
21500.0	451.9	-17.0	-35.9	18.8	616.4	622.6	265.4	12.8	1.000139
22000.0	442.8	-16.9	-36.7	19.0	606.6	621.3	264.9	12.6	1.000137
22500.0	433.7	-20.3	-37.9	19.2	597.5	619.5	266.1	12.3	1.000134
23000.0	424.9	-21.7	-38.9	19.4	586.6	617.8	267.2	12.3	1.000132

STATION ALTITUDE 5937.30 FEET MSL
23 APR. 81 0000 IRS MST
ASCENSION NO. 29

UPPER AIR DATA

0540060029

S N R

GEODETIC COORDINATES
32.4803N LAT DEG
106.42307 LONG LFG

TABLE 8 cont'

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT PERCENT	REL.HUM. PERCENT	SOUND METER KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
2,5500.0	416.2	-73.2	-40.0	19.6	579.9	616.0	260.0	12.4
24000.0	407.6	-74.6	-41.1	19.8	571.3	614.2	267.1	12.9
24500.0	399.3	-26.0	-42.2	20.0	562.7	612.5	265.5	13.5
25000.0	390.8	-27.3	-43.2	20.1	553.6	610.9	264.0	14.2
25500.0	382.6	-28.5	-44.2	20.3	544.7	609.4	262.6	14.9
26000.0	374.5	-29.7	-45.2	20.4	535.9	607.8	261.4	15.5
26500.0	366.6	-31.0	-46.2	20.6	527.3	606.3	260.5	16.2
27000.0	358.4	-32.2	-47.2	20.7	518.8	604.7	259.9	17.0
27500.0	351.2	-33.5	-48.2	20.8	510.5	603.1	260.2	17.8
28000.0	343.8	-34.7	-49.2	21.0	502.3	601.6	260.6	18.7
28500.0	336.3	-36.0	-51.5	18.2**	494.0	600.0	261.3	19.3
29000.0	329.0	-37.3	-54.0	14.7**	485.8	598.3	262.0	19.9
29500.0	321.8	-38.6	-57.6	11.2**	477.8	596.7	260.1	20.5
30000.0	314.7	-39.4	-61.6	7.6**	469.9	595.1	258.3	21.2
30500.0	307.6	-41.1	-67.1	4.1**	462.2	593.4	254.8	22.0
31000.0	301.1	-42.4	-80.7	.6**	454.6	591.0	251.1	22.9
31500.0	294.3	-43.7			446.8	590.1	249.1	23.6
32000.0	287.6	-45.0			439.1	588.5	248.2	24.2
32500.0	281.1	-46.3			431.6	586.8	248.2	24.7
33000.0	274.7	-47.6			424.2	585.1	249.2	25.3
33500.0	268.4	-48.9			417.0	583.4	249.9	25.8
34000.0	262.3	-50.2			409.9	581.7	249.4	26.6
34500.0	256.4	-51.5			402.9	580.0	248.9	27.5
35000.0	250.5	-52.8			396.0	578.3	251.8	27.3
35500.0	244.7	-53.6			388.6	577.0	254.7	27.3
36000.0	239.0	-54.6			381.2	575.7	257.6	26.2
36500.0	233.3	-55.4			373.3	574.9	260.7	24.6
37000.0	227.0	-56.0			365.5	574.1	262.9	23.4
37500.0	222.5	-56.6			357.9	573.3	263.1	22.7
38000.0	217.2	-57.0			350.4	572.5	263.4	22.2
38500.0	212.1	-57.7			342.9	571.8	266.8	23.2
39000.0	207.0	-57.7			334.7	571.8	269.8	24.2
39500.0	202.1	-57.7			326.8	571.8	275.5	25.5
40000.0	197.3	-57.0			319.2	571.7	261.5	27.2
40500.0	192.6	-57.4			311.8	571.5	286.2	29.6
41000.0	188.0	-58.1			304.6	571.3	289.7	33.1
41500.0	183.5	-58.3			297.5	571.1	292.6	36.7
42000.0	179.2	-58.6			290.7	570.9	296.5	38.9
42500.0	174.9	-58.6			283.9	570.7	300.0	41.1
43000.0	170.7	-58.7			277.4	570.5	303.8	42.6

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3497.0 FEET MSL
25 FEB. 01 0800 HRS MST
ASCENSION NO. 29

UPPER AIR DATA
0530060029
S N R

TABLE 8 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR CENTIGRADE	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	SOUND METER	WIND DATA DIRECTION DEGREES (IN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
45000.0	166.7	-68.0	-68.0	271.0	570.3	307.5	44.0	1.000060
44000.0	162.7	-57.7	-57.7	263.0	571.9	309.5	45.5	1.000059
44000.0	159.0	-57.6	-57.6	256.6	572.0	310.0	47.1	1.000057
45000.0	155.1	-57.7	-57.7	250.8	571.6	310.4	48.6	1.000056
45000.0	151.4	-57.9	-57.9	245.0	571.5	309.6	48.9	1.000055
45000.0	147.8	-58.7	-58.7	240.1	570.5	308.7	49.1	1.000053
46000.0	144.2	-59.8	-59.8	235.5	569.0	307.9	49.0	1.000052
46000.0	140.7	-60.3	-60.3	230.3	569.4	307.3	47.8	1.000051
47000.0	137.3	-60.4	-60.4	225.2	567.7	309.6	46.5	1.000050
48000.0	134.0	-61.3	-61.3	220.2	567.1	306.8	44.7	1.000049
48500.0	130.7	-61.7	-61.7	215.3	566.5	307.4	42.4	1.000048
49000.0	127.5	-62.2	-62.2	210.6	565.8	308.0	40.2	1.000047
49500.0	124.4	-62.7	-62.7	205.9	565.2	307.6	38.2	1.000046
50000.0	121.4	-63.2	-63.2	201.3	564.5	307.0	36.1	1.000045
50500.0	118.4	-63.6	-63.6	196.9	563.9	306.7	34.8	1.000044
51000.0	115.5	-64.1	-64.1	192.5	563.3	306.6	34.4	1.000043
51500.0	112.7	-64.6	-64.6	188.3	562.6	306.6	34.0	1.000042
52000.0	110.0	-65.1	-65.1	184.1	562.0	307.3	33.5	1.000041
52500.0	107.3	-65.5	-65.5	180.0	561.3	308.3	33.0	1.000040
53000.0	104.7	-66.0	-66.0	176.0	560.7	309.4	32.4	1.000039
53500.0	102.1	-66.5	-66.5	172.1	560.0	311.0	29.9	1.000038
54000.0	99.6	-66.9	-66.9	168.3	559.4	312.9	27.2	1.000037
54500.0	97.1	-67.2	-67.2	164.3	559.1	314.9	24.6	1.000037
55000.0	94.7	-67.4	-67.4	160.4	558.8	315.6	23.2	1.000036
55500.0	92.3	-67.7	-67.7	156.6	559.4	316.4	21.5	1.000035
56000.0	90.0	-67.9	-67.9	152.8	558.1	316.7	20.8	1.000034
56500.0	87.8	-68.2	-68.2	149.2	557.0	316.4	21.2	1.000033
57000.0	85.6	-68.4	-68.4	145.6	557.1	316.1	21.5	1.000032
57500.0	83.5	-68.7	-68.7	142.2	557.1	315.1	22.6	1.000032
58000.0	81.4	-69.9	-69.9	138.8	556.7	315.0	23.9	1.000031
58500.0	79.3	-69.2	-69.2	135.5	556.4	312.7	25.2	1.000030
59000.0	77.4	-69.4	-69.4	132.3	556.1	310.1	26.6	1.000029
59500.0	75.4	-69.7	-69.7	129.1	555.7	307.4	28.0	1.000029
60000.0	73.5	-69.9	-69.9	126.1	555.4	304.9	29.5	1.000028
60500.0	71.7	-70.2	-70.2	123.1	555.0	307.2	26.0	1.000027
61000.0	69.9	-70.4	-70.4	120.1	554.8	311.2	22.0	1.000027
61500.0	68.2	-69.9	-69.9	116.9	555.4	316.8	18.1	1.000026
62000.0	66.5	-69.4	-69.4	113.7	556.1	321.4	13.3	1.000025
62500.0	64.8	-68.9	-68.9	110.6	556.7	330.5	8.6	1.000025
63000.0	63.2	-68.0	-68.0	107.6	557.4	358.0	4.6	1.000024

STATION ALASKA
23 FLR. #1
ACHTERHOE, NO. 24

UPPER AIR DATA

054000029
S MR

GEODETIC COORDINATES
52.4603 \circ LAT UFG
106.42307 LONG UFG

TABLE 8 cont'

GRADIENT	PRESSURE	TEMPERATURE	REL.HUM.	DENSITY	SPD OF	WIND DATA	THIN X
ALITUDE	MM	DEGREE	PERCENT	GM/CURIC	SOUND	DIRECTION	OF
MSL FEET	MILLIBARS	OF GRADS C	CNTIGRADE	METER	KNOTS	DEGREES (TRI)	REFINING
0.3500.0	61.7	-61.6	104.7	558.1	328.3	3.9	1.000023
0.4000.0	60.1	-67.5	101.9	558.7	295.8	4.9	1.000023
0.4500.0	59.7	-67.0	99.1	559.4	278.3	6.9	1.000022
0.5000.0	57.2	-66.5	96.4	560.0	276.0	9.2	1.000021
0.5500.0	55.8	-66.0	93.8	560.7	275.9	11.5	1.000021
0.6000.0	54.4	-65.5	91.3	561.3	275.8	13.9	1.000020
0.6500.0	53.1	-65.0	88.8	562.0			1.000020
0.7000.0	51.7	-64.6	86.4	562.7			1.000019
0.7500.0	50.5	-64.1	84.1	563.5			1.000019
0.8000.0	49.2	-64.5	82.2	562.8			1.000018

STATION ALTITUDE 3907.30 FEET MSL
23 RH. 51
8000 FEET MSL
ASCENSION ISL.

MANDATORY LEVELS
0540060024
S M R

TABLE 9

GEONETIC COORDINATES
32°43'00" LAT DEG
106°42'30" LONG DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5056.	8.9	-11.1	23.	320.9
800.0	6697.	7.3	-13.2	21.	28.5
750.0	8432.	5.1	-15.5	21.	26.1
700.0	10271.	2.8	-17.9	20.	28.8
650.0	12226.	.2	-20.0	19.	28.5
600.0	14318.	-3.5	-23.8	19.	30.0
550.0	16556.	-7.9	-27.4	19.	279.9
500.0	18962.	-13.4	-32.0	19.	269.0
450.0	21572.	-18.1	-36.0	19.	264.6
400.0	24417.	-25.9	-42.1	20.	265.6
350.0	27540.	-33.7	-48.4	21.	261.3
300.0	31021.	-42.6			250.6
250.0	34971.	-52.9			251.9
200.0	39623.	-57.7			277.9
175.0	42303.	-58.6			26.1
150.0	45560.	-58.0			299.8
125.0	49290.	-62.6			40.9
100.0	53759.	-66.0			309.3
80.0	58158.	-69.1			49.0
70.0	60760.	-70.4			367.7
60.0	63724.	-67.4			38.6
50.0	67429.	-63.9			312.5

* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTIMETER 3912.7' FT. A.S.L.
23 JULY 31 0000 HRS, 1961
ASW 1501.40. 22

SIGNIFICANT LEVEL DATA
0540290022
+ -2³
TABLE 10

PRESENT GROSS TWIC ALTIMETERS IN FT.	RELATIVE ALTITUDE DEGREES FEE	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	RELATIVE PERCENT
1000.0	3012.7	-1.5	-9.8
0790.0	4212.5	3.6	-11.9
0670.0	4666.2	5.6	-11.3
0560.0	5015.7	6.8	-11.3
0557.6	5612.5	7.7	-9.6
0503.4	5371.8	7.3	-10.4
0470.0	6743.4	3.4	-14.2
0400.0	10218.0	1.6	-17.3
0367.4	12274.4	-1.5	-20.9
0352.4	16281.9	-7.4	-26.4
0300.0	18704.0	-13.4	-31.5
0176.0	20198.6	-15.9	-34.1
0060.0	24353.6	-26.4	-42.5
0348.4	27713.1	-35.4	-49.0
0000.0	30048.7	-44.2	-
0150.0	34383.5	-54.0	-
0220.0	36929.8	-58.0	-
0200.0	39538.3	-58.2	-
1172.0	42567.7	-58.7	-
1669.6	43325.7	-57.6	-
1500.2	44597.2	-59.5	-
1500.0	45497.2	-58.7	-
1300.0	47593.4	-61.9	-
1000.0	53705.8	-67.6	-
000.0	56023.2	-67.2	-
100.0	61731.7	-73.5	-
65.2	62122.2	-68.0	-
52.0	66573.4	-68.0	-
50.0	67657.6	-68.3	-
41.4	71372.3	-57.4	-
38.4	72938.7	-58.7	-
33.7	75663.1	-56.6	-

STATION ALTIMETER 39120.75, EFFECT 1.01
23 P.D. 01
ASSTATION NO. 22

WEATHER AIR DATA
E-2A

GEODETIC COORDINATES
52.89927 LAT DEG
106.40591 LONG DEG

TABLE II

CRIMETRIC PRESSURE	PRESSURE	TEMPERATURE	REL.HUM.	INTENSITY	SIGHTS OF	WIND DATA
ALTIMETER	MM. MILLIBARS	MM. DEVIATION	PERCENT	GRADUCED	SOUND METER	SPEED
FEET	MILLIBARS	DEVIATION	PERCENT	CENTIGRAPH	KNOTS	KNOTS
8412.7	8455.8	-1.5	-2.0	53.0	.1134.6	240.0
4000.0	8822.9	-1.0	-1.0	46.6	.1124.7	200.5
4500.0	8604.4	5.0	-11.3	27.9	1050.6	260.0
5000.0	8505.5	6	-11.3	26.1	1057.2	273.6
5500.0	8346.9	7.7	-9.7	27.9	1074.4	25.9
6000.0	8145.6	7.5	-10.1	27.4	1016.2	46.1
6500.0	8043.5	7.1	-10.6	26.9	998.9	1.00026.5
7000.0	7897.7	6.3	-11.4	26.7	983.4	1.00025.3
7500.0	7755.1	5.4	-12.2	26.5	968.1	1.00024.8
8000.0	7606.6	4.6	-13.1	26.3	953.3	1.00024.0
8500.0	7465.7	3.8	-13.9	26.1	938.3	1.00023.0
9000.0	7324.9	3.1	-14.6	25.5	923.3	1.00023.6
9500.0	7194.2	2.5	-15.8	24.5	908.2	1.00023.1
10000.0	7053.8	1.9	-16.8	23.4	893.2	1.00022.7
10500.0	6922.6	1.2	-17.8	22.7	878.8	1.00022.3
11000.0	6794.5	0.4	-18.6	22.2	864.6	1.00021.9
11500.0	6666.7	-0.3	-19.5	21.6	850.7	1.00021.5
12000.0	6544.2	-1.1	-20.4	21.3	837.1	1.00021.1
12500.0	6414.0	-1.6	-21.6	20.9	823.5	1.00020.7
13000.0	6294.5	-2.5	-21.9	20.4	809.9	1.00020.3
13500.0	6171.5	-3.5	-22.6	20.7	796.5	1.00020.0
14000.0	6053.6	-4.0	-23.2	20.6	783.4	1.00019.7
14500.0	5941.1	-4.7	-23.9	20.5	770.5	1.00019.4
15000.0	5828.7	-5.4	-24.6	20.3	757.8	1.00019.0
15500.0	5714.1	-6.1	-25.3	20.2	745.3	1.00018.6
16000.0	5604.6	-6.9	-25.9	20.1	733.0	1.00018.3
16500.0	5491.9	-7.7	-26.7	20.0	721.2	1.00017.9
17000.0	5379.1	-8.7	-27.7	20.0	710.3	1.00017.6
17500.0	5266.5	-10.1	-28.7	20.0	699.6	1.00017.3
18000.0	5153.2	-11.2	-29.7	20.0	689.0	1.00017.0
18500.0	5040.1	-12.4	-30.7	20.0	679.6	1.00016.7
19000.0	4926.1	-13.5	-31.7	19.9	669.3	1.00016.4
19500.0	4812.2	-14.6	-32.4	19.9	659.7	1.00016.2
20000.0	4708.5	-15.7	-33.9	19.1	647.5	1.00016.0
20500.0	4604.4	-16.9	-34.4	19.1	635.1	1.00015.9
21000.0	4502.2	-17.1	-35.0	19.2	623.7	1.00015.8
21500.0	4400.9	-19.4	-36.9	19.3	612.2	1.00015.6
22000.0	4300.7	-20.6	-37.9	19.4	602.7	1.00015.4
22500.0	4200.7	-21.8	-38.6	19.6	593.3	1.00015.3
23000.0	4224.1	-23.1	-39.7	19.7	584.0	1.00015.2

STATION ALTITUDE 3412.75 FEET ASL
24 SEP. 81
ASCENSION NO. 22

UPPER AIR DATA
0540Z900Z
F-2A
TABLE 11 cont'

GEOM TELL	PRESSURE	TEMPERATURE	REL.HUM.	DENSITY	SPEED OF	WIND DATA	SPEED
ATMOPH	MILLIBARS	ATM.	DEW POINT	GRAM/CUBIC	SOUND	DIRECTION	KNOTS
ASCN	FEET		PERCENT	KILOMETERS	METER	DEGREES (TN)	
23900.0	914.3	-74.3	-96.8	579.9	614.6	250.6	11.0
24000.0	905.9	-75.5	-91.6	570.9	615.1	252.1	11.4
24500.0	397.5	-29.3	-62.8	562.0	611.5	253.5	11.8
25000.0	319.1	-29.1	-63.0	553.1	609.3	258.7	12.7
25500.0	308.8	-29.5	-64.7	544.4	608.2	263.3	13.8
26000.0	312.8	-30.8	-65.7	535.8	606.5	265.6	14.7
26500.0	366.9	-32.2	-66.6	527.4	604.8	263.5	15.6
27000.0	357.1	-33.5	-67.6	519.1	603.1	261.4	16.6
27500.0	349.5	-36.8	-68.6	511.0	601.4	259.0	17.7
28000.0	342.6	-36.2	-50.5	502.8	599.7	259.2	18.7
28500.0	334.5	-37.5	-53.2	494.2	596.0	261.7	19.6
29000.0	327.1	-39.0	-56.2	486.5	593.3	263.5	20.4
29500.0	320.0	-40.3	-57.7	478.6	594.5	264.4	21.0
30000.0	312.0	-41.6	-63.9	470.6	592.8	264.1	22.0
30500.0	304.0	-43.0	-76.3	463.2	591.0	259.6	22.8
31000.0	299.3	-44.1	-94.6	455.6	589.3	256.4	26.2
31500.0	292.4	-45.6	-97.7	447.7	587.7	253.6	27.5
32000.0	285.4	-46.8	-96.8	439.8	586.1	251.4	28.5
32500.0	279.2	-48.2	-98.4	432.1	584.5	250.7	28.7
33000.0	272.8	-49.3	-99.8	424.6	582.9	250.0	28.9
33500.0	266.6	-50.5	-96.2	417.2	581.2	250.1	30.1
34000.0	260.5	-51.8	-91.9	410.0	579.6	250.3	31.2
34500.0	254.5	-53.0	-93.2	402.8	578.0	251.3	31.8
35000.0	248.7	-54.2	-95.7	395.7	576.4	252.5	32.3
35500.0	242.8	-55.2	-96.1	388.1	575.1	255.7	31.0
36000.0	237.1	-56.2	-96.1	380.7	573.8	259.7	29.4
36500.0	231.5	-57.2	-95.4	373.4	572.5	263.4	28.1
37000.0	226.0	-59.0	-95.2	366.0	571.4	267.0	27.0
37500.0	220.6	-60.0	-95.7	357.3	571.4	269.9	26.3
38000.0	215.4	-60.1	-96.1	349.9	571.3	271.9	31.0
38500.0	210.3	-60.1	-96.2	340.6	571.3	274.9	32.7
39000.0	205.3	-60.2	-95.7	332.6	571.2	273.9	33.5
39500.0	200.4	-61.2	-94.2	324.7	571.2	285.0	34.0
40000.0	195.6	-61.3	-94.3	317.1	571.1	288.3	33.3
40500.0	191.9	-61.4	-94.4	309.7	571.0	293.6	32.9
41000.0	188.4	-61.4	-94.4	302.4	570.6	298.7	36.1
41500.0	184.9	-61.5	-94.5	295.3	570.7	302.0	39.7
42000.0	181.6	-61.6	-94.6	288.4	570.6	304.4	42.3
42500.0	178.4	-61.7	-94.7	281.6	570.5	304.5	44.0
43000.0	169.2	-68.2	-95.2	274.3	571.2	304.4	45.5

GEODETIC COORDINATES
52°09'27" LAT NEG
166.40591 LONG DEG
WIND DATA
DIRECTION
DEGREES (TN)
REFRACTION

** ALL LAT. AND LONG. RELATIVE TO LATITUDE VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 912.7 FT MSL
23 FT. 11 IN. 0650 1000 1011
ASSEMBLY 40. 22

UPPER AIR DATA
0540290024
E-29

TABLE 11 cont'

GEOPH. THERM.	PRESSURE	TEMPERATURE	REL.HUM.	DENSITY	SPEED OF	WIND DATA	REFLX
AT. 11100FT. MSL + FT.	MILLIBARS	AIR DEWPONT CENTIGRADE	PERCENT GRACIMIC	KNOTS	DIR. & DIST. DEGREES(T/H)	KNOTS	OF REFRACTION
45500.0	165.2	-59.1	267.6	571.3	303.4	45.5	1.000000
46100.0	161.5	-58.9	262.2	570.3	302.4	45.4	1.000003
46500.0	157.4	-59.4	250.6	569.5	301.6	46.0	1.000057
47000.0	153.7	-59.1	250.0	570.0	301.1	47.0	1.000056
47500.0	150.0	-58.7	243.6	570.5	300.7	48.0	1.000054
48000.0	146.4	-59.4	238.6	569.5	301.1	48.9	1.000053
48500.0	142.9	-60.2	233.7	568.6	301.5	49.8	1.000052
49000.0	139.4	-60.9	228.8	567.6	302.6	49.4	1.000051
49500.0	136.1	-61.6	224.1	566.6	300.6	48.4	1.000050
50000.0	132.8	-62.2	219.2	565.8	306.2	47.2	1.000049
50500.0	129.5	-62.7	214.3	565.2	303.0	44.8	1.000048
51000.0	126.3	-63.1	209.6	564.6	303.5	42.4	1.000047
51500.0	123.2	-63.6	204.9	563.9	302.5	40.3	1.000046
52000.0	120.2	-64.1	200.3	563.3	301.4	38.5	1.000045
52500.0	117.3	-64.6	195.8	562.7	300.4	36.0	1.000044
53000.0	114.4	-65.0	191.5	562.0	302.1	35.4	1.000043
53500.0	111.6	-65.4	187.2	561.4	305.8	34.4	1.000042
54000.0	108.8	-66.0	183.0	560.7	309.8	33.6	1.000041
54500.0	106.2	-66.5	179.9	560.1	311.0	32.3	1.000040
55000.0	103.6	-66.9	175.0	559.4	311.3	30.8	1.000039
55500.0	101.0	-67.4	171.1	558.8	311.2	29.1	1.000038
56000.0	98.5	-67.5	166.9	558.6	309.1	26.0	1.000037
56500.0	96.1	-67.5	162.7	558.7	304.0	23.0	1.000036
57000.0	93.7	-67.4	158.6	558.6	301.5	20.9	1.000035
57500.0	91.3	-67.3	154.6	559.0	300.7	19.3	1.000034
58000.0	89.1	-67.2	150.7	559.1	299.7	17.7	1.000034
58500.0	86.9	-67.1	147.4	558.2	294.6	17.3	1.000033
59000.0	84.7	-67.5	144.1	557.3	299.8	17.4	1.000032
59500.0	82.5	-67.0	141.0	556.4	300.0	17.4	1.000031
60000.0	80.3	-67.3	137.9	555.5	303.5	19.0	1.000031
60500.0	78.1	-67.2	134.8	554.6	307.1	20.9	1.000030
61000.0	76.0	-70.5	131.9	554.7	310.0	23.0	1.000029
61500.0	74.5	-71.2	129.0	552.7	315.1	22.3	1.000029
62000.0	72.7	-72.5	126.2	551.8	320.5	21.7	1.000028
62500.0	70.8	-73.2	123.4	550.9	325.2	19.8	1.000027
63000.0	69.0	-72.4	119.8	551.9	329.1	14.8	1.000027
63500.0	67.3	-70.5	115.7	554.6	337.0	9.9	1.000026
64000.0	65.6	-69.5	111.7	557.3	320.0	5.4	1.000025
64500.0	64.2	-67.7	108.5	558.5	263.7	3.4	1.000024
65000.0	62.0	-67.0	105.6	559.1	216.1	6.6	1.000024

STATION ALTITUDE 912.7' F.F.T MSL
24 DEG. N.
0850 hrs. MST
ASCENSION NO. 22

UPPER AIR DATA
054029002_e
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TABLE 11 cont.

GEODETIC COORDINATES
32.8927 LAT deg
106.40591 LONG deg

GEODETIC PRESSURE AT ELEVATION	TEMPERATURE IN DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CMIC	SOUND SPEED KNOTS	WIND DIRECTION DEGREES (IND)	WIND SPEED KNOTS	INDEX OF REFRACTION
61500.0	-65.8	102.7	559.7	215.7	7.4		1.000023
60000.0	-66.3	100.0	560.3	217.2	7.7		1.000022
57500.0	-65.9	97.3	560.9	219.3	8.0		1.000022
55000.0	-65.4	94.7	561.5	234.2	7.0		1.000021
52500.0	-65.0	92.2	562.1	252.3	6.6		1.000021
50000.0	-64.5	89.7	562.7	266.9	7.3		1.000020
47500.0	-64.1	87.3	563.3	267.0	9.6		1.000019
45000.0	-62.2	84.5	565.3	267.0	11.9		1.000019
42500.0	-60.3	81.7	568.4	267.2	13.1		1.000018
40000.0	-59.7	79.6	569.9	267.9	12.2		1.000018
37500.0	-59.5	77.5	569.4	268.6	11.4		1.000017
35000.0	-59.2	75.6	569.9	269.8	10.2		1.000017
32500.0	-53.8	73.6	570.4	273.2	6.1		1.000016
30000.0	-51.2	71.8	570.9	289.1	2.2		1.000016
27500.0	-53.0	69.9	571.4	62.1	2.3		1.000016
25000.0	-57.7	68.1	571.9	72.2	3.8		1.000015
22500.0	-57.5	66.5	572.1	75.7	4.8		1.000015
20000.0	-57.9	65.0	571.5	78.0	5.8		1.000014
17500.0	-58.3	63.6	571.0				1.000014
15000.0	-58.7	62.2	570.6				1.000014
12500.0	-58.3	60.6	571.1				1.000013
10000.0	-57.9	59.1	571.6				1.000013
75000.0	-57.5	57.6	572.1				1.000013
50000.0	-57.1	56.1	572.6				1.000012
25000.0	-56.7	56.7	573.1				1.000012

STATION ALTIMETER 3912.7^a, EFT MSL
23°FCD. AT 0900 hrs, 6,0T
ALTITUDE 10,0. 22

MANDATORY LEVELS

E-20

TABLE 12

PRESSURE MILLIBARS	GEOPOTENTIAL FLEET	TEMPERATURE DEGREES CENTIGRADE	WIND DATA		
			AIR DEPOINT	R.HUM. PERCENT	DIRECTION DEGREES (TN)
850.0	5012.	6.0	-11.3	26.	275.7 .7
800.0	6609.	6.0	-10.9	27.	60.2 2.9
750.0	8378.	4.0	-13.7	26.	130.4 2.8
700.0	10209.	1.6	-17.3	23.	141.0 7.2
650.0	12157.	-1.3	-20.7	21.	261.9 5.6
600.0	14237.	-4.3	-23.6	21.	296.6 13.1
550.0	16073.	-7.7	-26.7	20.	284.9 19.3
500.0	18079.	-13.4	-31.5	20.	265.8 14.3
450.0	21001.	-10.3	-36.9	19.	265.4 14.1
400.0	24314.	-26.4	-42.5	20.	253.1 11.6
350.0	27427.	-34.0	-48.6	23.	259.1 17.7
300.0	30819.	-44.2			256.8 26.1
250.0	34814.	-54.0			252.2 32.1
200.0	39046.	-58.2			283.2 34.0
175.0	42201.	-58.7			304.5 43.3
150.0	45378.	-58.7			300.7 47.9
125.0	49000.	-63.3			302.9 41.4
100.0	53563.	-67.6			310.2 28.0
80.0	57943.	-70.0			304.3 19.4
70.0	60528.	-73.5			326.5 17.6
60.0	63574.	-66.5			216.5 7.6
50.0	67209.	-60.3			267.1 13.2
40.0	71009.	-50.0			78.2 5.9

* * AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

